UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/186,817	11/05/1998	MARK RAPAICH	450.183US1	2299

24333   7590   12/17/2002

GATEWAY, INC.
ATTN: SCOTT CHARLES RICHARDSON
610 GATEWAY DRIVE
MAIL DROP Y-04
N. SIOUX CITY, SD   57049

EXAMINER
LAO, LUN S

ART UNIT	PAPER NUMBER
2643	

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.		**Applicant(s)**	
Office Action Summary	09/186,817		RAPAICH, MARK	
	Examiner		**Art Unit**	
	Lun-See Lao		2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 03 October 2002 .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-13* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

DETAILED ACTION

Introduction

1.   Claim 1-13 of U.S. application 09/186,817 filed on 11/05/1998 are presented for examination. This action is in response to applicant's response filed 10/3/2002.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-3, 5-9, 11,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (US PAT 5,592,508).

Regarding claim 1, Cooper teaches that a personal computer system comprising:

a plurality of audio digital-to-analog converters (see fig.4,(10-1-10-n)),

a controller (see fig.4,17) configured to receive digital audio signals from multiple sources and route (see fig.4,16) the digital audio signals to a selected digital-to-analog converter (10-1,10-n) based on desired converter quality (route to a converter matching the appropriate/particular signal, col.4 line 55-col.5 line 55). It is noted that video signals typically have more bits per packet than audio signals. Therefore, it would have been obvious to treat the video signals as higher quality than audio signals. The same is true for corresponding audio and video converters.

Regarding claims 2, 13, Cooper teaches a personal computer system comprising:

one or more standard digital audio sources (see fig.4, (13-1-13-n));

means for routing (16) digital audio signals from standard digital audio sources to a standard quality digital-to-analog converter (see fig.4,(10-1-10-n); and

means for routing (16) digital audio signals from a high-quality digital audio source to a high quality digital-to-analog converter (see fig.4, (10-1-10-n) and col.4 line 50 - col.5 line 55) (different types of input signals, col. 1, lines 9-13). Note discussion of claim 1 for quality of converters.

Regarding claim 3, Cooper discloses that the personal computer system includes any of the high quality or standard quality digital-to-analog converters are coder-decoders (CODECs) that contain both digital-to-analog converters (see fig.4, (10-1-10-n)) and analog-to-digital converters (see fig.4,(13-1-13-n) and col.4 line 50- col.5 line 50).

Regarding claims 5-6, Cooper teaches that a user configures the controller by hardware or software controls, such that the controller routes a selected analog signal to a selected one of a plurality of analog outputs (see fig.4 and col.4 line 5- col.5 line 15), and that the selected analog signal is provided by one of a group consisting of the digital-to-analog converters, Compact Disc players, DVD players, microphones, TV tuners, or analog inputs (see col.3 lines 20-42).

Regarding claims 7-8, Cooper teaches a standard personal computer bus for transferring the digital audio signal (see fig.4,(13-1-13-n)) from the digital audio source to the controller (see fig.4,17); and that the digital audio signal (see fig.4,(10-1-10-n)) is

transferred from the digital audio source(13-1-13-n) to the controller (17) by a direct

electrical or optical connection between the two.

Regarding claim 9, Cooper teaches that a method of routing digital audio to a

plurality of digital-to-analog converters in a personal computer comprising the steps of:

receiving digital audio data from one of a plurality of digital audio sources (after

a/d,(13-1-13-n)); and

routing (see fig.4,16) the digital audio data to one of a plurality (see fig4. 10-1-10-

n)) of converters based on desired converter quality (route to a converter matching the

appropriate/particular signal, col.4 line 55-col.5 line 55). Note discussion of claim 1 for

based on desired converter quality.

Regarding claim 11, Cooper teaches that a method of routing digital audio to a

plurality of audio digital-to-analog converters in a personal computer comprising the

steps of:

receiving digital audio from one of a plurality of digital audio sources (see fig.4

(after a/d, 13-1-13-n));

assigning digital audio data from a source a priority (higher priority input, col.4

line 50-col.5 line 55); and

routing (16) the digital audio data to one of a plurality of converters (10-1-10-n) in

an order determined by the assigned data priority (see fig.4 col.4 line 50-col.5 line 55).

It is noted that assigning a higher priority to one input effectively assigns relatively lower

priorities to other inputs. Alternatively, it would have been obvious to explicitly assign

one priority level to each input.

4.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hewitt

(US PAT 5,896,291) in view of Cooper (US PAT 5,592,508).

Regarding claim12, Hewitt teaches that a personal computer system comprising:

memory; a processor; a bus (see fig.1 #102,108,104). But Hewitt fails to teach a

plurality of digital audio converters; a controller configured to receive digital audio

signals from multiple sources and route the digital audio signals to a selected digital-to-

analog converter based on desired converter quality.

However, Cooper teaches a system for routing digital audio signal to a plurality of

digital-to-analog converters in a personal computer, comprising:

a plurality of digital audio converters (see fig.4 (10-1-10-n));

controller configured to receive digital audio data from one of a plurality of digital

audio sources (13-1-13-n), and to route (16) the digital audio data to one of a plurality

(see fig4. 10-1-10-n) of converters based on a digital output or analog output matching

the particular input signal (13-1-13-n) which is coupled to the router (see fig.4 #16)

which is desired converter quality (see col.4, line 50 - col.5, line 55).

Therefore, it would have obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of Hewitt and Cooper to achieve a

computer system providing an analog signal coding and transmission apparatus to have

large switching and routing network in order to couple signals from the output of one

particular source to the input of another particular processor or user of the signal.

5.   Claims 4,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Cooper (US PAT 5,592,508) as applied to claims 1, 9 and in view of Van Ryzin (US

PAT 6,052,471).

Regarding claims 4, 10, Cooper teaches that assigning digital audio data from

each source a priority (higher priority input); assigning digital audio data from each

source to one of the plurality of converters (see col.4 line 50-col.5 line 55). Cooper fails

to teach that determining which digital audio data has the highest priority among all data

assigned to each converter; and converting the digital audio data in each converter with

the highest priority to analog audio.

However, Van Ryzin teaches that determining which digital audio data has the

highest priority among all data assigned to each converter; and converting the digital

audio data in each converter with the highest priority to analog audio (see col.3 line 60-

col.4 line 65).

Therefore, it would have obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of Cooper and Van Ryzin to achieve a

system receiving inputs signals from multiple sources to be able to readily switch to an

appropriate source of the multiple sources while requiring a minimum amount of user

intervention.

6.   Applicant's arguments filed 10/3/2002 have been considered but are moot in

view of the new grounds of rejection.

Regarding applicant's argument (page 2) that formats in Cooper does not teach

quality, the examiner's response is that different formats in Cooper represent different

levels of quality in that video signals have higher quality than audio signals because the

former have more data bits per packet than the latter.

Applicant argued that (page 2) Cooper does not mention personal computer. The

examiner disagrees. See Cooper, col. 3, lines 21-41.

Applicant further argued (page 4) that Hewitt does not teach multiple D-A

converters. The examiner's response is that multiple D-A converters are met by Cooper,

as discussed for claim 1.

Conclusion

7.   Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington.

VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Lao, Lun-See whose telephone number is (703) 305-2259 The examiner

can normally be reached on Monday-Friday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Curtis Kuntz, can be reached on (703) 305-4708.

Any inquiry of a general nature or relating to the status of this application or proceeding
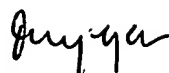
should be directed to the Technology Center 2600 whose telephone number is (703) 306-0377.

Lao, Lun-See
Patent Examiner
US Patent and Trademark Office
Crystal Park 2
(703305-2259

DUC NGUYEN
PRIMARY EXAMINER